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determining a data conversion condition for communication on the basis of the information; and

transmitting the data conversion condition to the speech input terminal.

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REMARKS

Favorable reconsideration and withdrawal of the rejections set forth in the Official Action dated September 24, 2002, in view of the foregoing amendments and the following remarks are respectfully requested.

Submitted herewith is a Request for Consideration of Previously Cited Document.

Favorable consideration thereof is requested.

Claims 1 through 38 are pending in the application, with Claims 1, 6, 7, 10, 11 and 21 through 38 being independent. Claims 1, 3 through 7 and 10 through 38 are amended herein merely to improve their form and without affecting their scope. No new matter has been added.

Initially, Applicants would like thank the Examiner for allowing Claims 23, 24, 28, 29, 32 through 34, 37 and 38. Applicants submit that the amendments to those claims do not affect their allowability.

The Examiner has objected to the title and has requested a new title that is more clearly indicative of the claimed invention. Therefore, the title is amended herein. Applicants submit that the new title is more indicative of the invention and will assist in the searching and classification of the application when it is patented.

The specification was objected to due to minor informalities on pages 2 and 20.

The specification has been amended to attend to the objection. No new matter has been added.

Favorable consideration is requested.

The Summary of the Invention Section of the Specification has been objected to on the grounds that the Summary is not brief and is a “cosmetic makeover of the claims” that would “amount to having the claims provide the *only* specification [sic; description] for themselves.” (Emphasis added). Applicants respectfully traverse the objection, because the Summary is brief in relation to the remainder of the specification and also provides a summary of the nature and substance of the invention, as required by the rules. Moreover, the claims are not the only description for the subject matter contained therein because the remainder of the specification and the figures are also part of the disclosure. In light of the foregoing, withdrawal of the objection is requested.

The Examiner’s comments regarding the numbering of Claims 6 through 20 are noted.

Claims 34 through 38 stand objected to for various grammatical, syntactical and structural reasons. Claims 34 through 38 have been amended to attend to the objection.

Favorable consideration is requested.

Claims 1 through 3, 6, 7, 10 through 17, 19 through 22, 25 through 27, 30, 31, 35 and 36 stand rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,263,202 (Kato, et al.). Claim 4 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Kato, et al. in view of U.S. Patent No. 6,223,161 (Schliwa). Claims 5, 8, 9 and 18 stand

rejected under 35 U.S.C. § 103(a) as being unpatentable over Kato, et al. in view of U.S. Patent No. 6,058,365 (Nagai, et al.). The rejections respectfully are traversed.

Each of independent Claims 1, 6, 7, 10, 11, 21, 22, 25 through 27, 30, 31, 35 and 36 recite, among other things, a speech input terminal (or a speech input means, as in Claim 1) and means for creating or receiving information for speech recognition that is unique to the speech input terminal or means.

Kato, et al. discloses a system comprising a PHS 12 (which may be considered a speech input terminal) and a provider system 18 which are connected through a wireless communication network. However, Applicants submit that Kato, et al. does not disclose or suggest creating or receiving information for speech recognition that is unique to the speech input terminal or represents an operation state thereof.

The Official Action states that Fig. 7 shows creating information for speech recognition at step 403. However, step 403 is performed after a voice recognition step 402. Thus, the information created in step 403 is not informed used for speech recognition. In addition, there is also no disclosure or suggestion that the information is unique to the speech input terminal or represents an operation state thereof.

Accordingly, Applicants submit that Claims 1 through 3, 6, 7, 10 through 17, 19 through 22, 25 through 27, 30, 31, 35 and 36 are patentable over Kato, et al.

Schliwa and Nagai et al., which were cited with reference to various dependent claims, fail to remedy the deficiencies in the disclosure of Kato, et al. Schliwa discloses setting terminal specific parameters of a communication terminal using a speech recognition. Nagai et

al. relates to the improvement of a speech recognition method using an LR parser so as to be adapted to a phoneme environment such as a triphone.

The other claims in this application are each dependent from one or another of the independent claims discussed above and are therefore believed patentable for the same reasons. Since each dependent claim is also deemed to define an additional aspect of the invention, however, the individual reconsideration of the patentability of each on its own merits is respectfully requested.

In view of the foregoing amendments and remarks, Applicants respectfully request favorable reconsideration and early passage to issue of the present application.

Applicants' undersigned attorney may be reached in our Washington, D.C. office by telephone at (202) 530-1010. All correspondence should continue to be directed to our address listed below.

Respectfully submitted,



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**VERSION WITH MARKINGS TO SHOW CHANGES MADE TO THE SPECIFICATION**

The paragraph starting at page 2, line 1 and ending at line 3, has been amended as follows.

--In addition, since communication is performed under the same communication conditions under [any] many circumstances, high communication efficiency cannot always be ensured.--

The paragraph starting at page 19, line 22 and ending at page 20, line 8, has been amended as follows.

--In step S409, in order to improve the communication efficiency of speech recognition, the speech communication information creation unit 204 performs environment adaptation for a table for the creation of communication speech information. A method of creating a scalar quantization table of parameters of the respective dimensions which are used for speech recognition by using the distribution of environment adaptive speech recognition models will be described below. As this method, various methods can be used, some of which follow. The simplest method is a method of searching  $3\sigma$  of the respective dimensions for the maximum and minimum values, and dividing the interval therebetween into equal portions.--

The paragraph starting at page 22, line 1 and ending at line 5, has been amended as follows.

--In step S416, the speech recognition result is interpreted by the application 206 to [obtain an] operate the application [corresponding to] in accordance with the result, and the application result is sent to the communication control unit 202.--

**VERSION WITH MARKINGS SHOWING CHANGES MADE TO CLAIMS**

1. (Amended) A speech input terminal for transmitting speech data to a speech recognition apparatus through a wire or wireless communication network comprising:  
speech input means;  
means for creating information for speech recognition, [which is] the information ~~being unique to said speech input [terminal]~~ means or [represents] representing an operation state thereof; and  
communication means for transmitting the information to said speech recognition apparatus.

3. (Amended) The terminal according to claim 1, further comprising means for[, when a data conversion condition for communication based on the information is received from said speech recognition apparatus,] converting the speech data on the basis of the conversion condition when a data conversion condition for communication based on the information is received from said speech recognition apparatus.

4. (Amended) The terminal according to claim 1, further comprising:  
means for storing the information;  
means for determining whether there has been a change in the information in [each] communication; and

means for[, when there has been no change in the information,] notifying said speech recognition apparatus of the corresponding information, when there has been no change in the information.

5. (Amended) The terminal according to claim 1, [wherein ] further comprising:

[said terminal further comprises] means for creating a speech recognition model on the basis of the information, [and ]

wherein said communication means transmits [the information and/or] the speech recognition model to said speech recognition apparatus.

6. (Amended) A speech recognition apparatus comprising:

speech recognition means for executing speech recognition processing for speech data transmitted from a speech input terminal through a wire or wireless communication network; and

means for receiving information for speech recognition from the speech input terminal, [which is] the information being unique to [said] the speech input terminal or [represents] representing an operation state thereof [from said speech input terminal], wherein said speech recognition means executes speech recognition processing on the basis of the information.

7. (Amended) A speech recognition apparatus for executing speech recognition processing for speech data transmitted from a speech input terminal through a wire or wireless communication network comprising:

means for creating information for speech recognition on the basis of the transmitted speech data, [which is] the information being unique to [said] the speech input terminal or [represents] representing an operation state thereof[, on the basis of the transmitted speech data]; and

means for executing speech recognition processing on the basis of the information.

10. (Amended) A speech recognition apparatus for executing speech recognition processing for speech data transmitted from a speech input terminal through a wire or wireless communication network comprising:

means for receiving information for speech recognition from the speech unit terminal, [which is] the information being unique to [said] the speech input terminal or [represents] representing an operation state thereof [from said speech input terminal];

means for determining a data conversion condition for communication on the basis of the information; and

means for transmitting the data conversion condition to [said] the speech input terminal.

11. A speech recognition apparatus for executing speech recognition processing for speech data transmitted from a speech input terminal through a wire or wireless communication network comprising:

means for creating information for speech recognition on the basis of the transmitted speech data, [which is] the information being unique to [said] the speech input terminal or [represents] representing an operation state thereof, on the basis of the transmitted speech data];

means for determining a data conversion condition for communication on the basis of the information; and

means for transmitting the data conversion condition to [said] the speech input terminal.

12. (Amended) The apparatus according to claim 10, wherein the data conversion condition [includes a data conversion condition] is based on a quantization table created on the basis of the information.

13. (Amended) The apparatus according to claim 11, wherein the data conversion condition [includes a data conversion condition] is based on a quantization table created on the basis of the information.

14. (Amended) The apparatus according to claim 6, [further] comprising a plurality of speech input terminals and means for[, when said speech input terminal comprises a plurality of speech input terminals,] storing the information in correspondence with [to] each of [said] the speech input terminals.

15. (Amended) The apparatus according to claim 7, [further] comprising a plurality of speech input terminals and means for[, when said speech input terminal comprises a plurality of speech input terminals,] storing the information in correspondence with [to] each of [said] the speech input terminals.

16. (Amended) The apparatus according to claim 10, further comprising a plurality of speech input terminals and means for[, when said speech input terminal comprises a plurality of speech input terminals,] storing the information in correspondence with each of [said] the speech input terminals.

17. (Amended) The apparatus according to claim 11, further comprising a plurality of speech input terminals and means for[, when said speech input terminal comprises a plurality of speech input terminals,] storing the information in correspondence with each of [said] the speech input terminals.

18. (Amended) The apparatus according to claim 8, further comprising a plurality of speech input terminals and means for[, when said speech input terminal comprises a plurality of speech input terminals,] storing the speech recognition model in correspondence with each of [said] the speech input terminals.

19. (Amended) The apparatus according to claim 10, further comprising a plurality of speech input terminals and means for[, when said speech input terminal comprises a plurality of speech input terminals,] storing the data conversion condition in correspondence with each of [said] the speech input terminals.

20. The apparatus according to claim 11, further comprising a plurality of speech input terminals and means for[, when said speech input terminal comprises a plurality of speech input terminals,] storing the data conversion condition in correspondence with each of [said] the speech input terminals.

21. (Amended) A speech communication system comprising a speech input terminal and a speech recognition apparatus, each of which can communicate with [each] the other through a wire or wireless communication network,

wherein said speech input terminal comprises speech input means, means for creating information for speech recognition, [which is] the information being unique to said

speech input terminal or [represents] representing an operation state thereof, and communication means for transmitting the information to said speech recognition apparatus, and  
wherein said speech recognition apparatus comprises means for executing speech recognition processing on the basis of the information.

22. (Amended) A speech communication system comprising a speech input terminal and a speech recognition apparatus, each of which can communicate with [each] the other through a wire or wireless communication network, [wherein]  
said speech recognition apparatus [comprises] comprising means for creating information for speech recognition on the basis of speech data from said speech input terminal, [which is] the information being unique to said speech input terminal or [represents] representing an operation state thereof[, on the basis of speech data from said speech input terminal,] and means for executing speech recognition processing on the basis of the information.

23. (Amended) A speech communication system comprising a speech input terminal and a speech recognition apparatus, each of which can communicate with [each] the other through a wire or wireless communication network,  
wherein said speech input terminal comprises speech input means, means for creating information for speech recognition, [which is] the information being unique to said

speech input terminal or [represents] representing an operation state thereof, and communication means for transmitting the information to said speech recognition apparatus, and

wherein said speech recognition apparatus comprises means for determining a data conversion condition for communication on the basis of the information, and means for transmitting the data conversion condition to said speech input terminal.

24. (Amended) A speech communication system comprising a speech input terminal and a speech recognition apparatus, each of which can communicate with [each] the other through a wire or wireless communication network, [wherein]  
said speech recognition apparatus [comprises] comprising means for creating information for speech recognition, [which is] the information being unique to said speech input terminal or represents an operation state thereof[,] on the basis of speech data from said speech input terminal, means for determining a data conversion condition for communication on the basis of the information, and means for transmitting the data conversion condition to said speech input terminal.

25. (Amended) A speech communication method of transmitting speech data from a speech input terminal to a speech recognition apparatus through a wire or wireless communication network comprising:

[in the speech input terminal, ]

the step of creating information for speech recognition in the speech input terminal, [which is] the information being unique to [said] the speech input terminal or [represents] representing an operation state thereof; and

the step of transmitting the information from the speech input terminal to the speech recognition apparatus.

26. (Amended) A speech communication method of executing speech recognition processing for speech data transmitted from a speech input terminal through a wire or wireless communication network comprising:

the step of receiving information for speech recognition from the speech input terminal, [which is] the information being unique to [said] the speech input terminal or [represents] representing an operation state thereof [from the speech input terminal]; and

the step of executing speech recognition processing on the basis of the information.

27. (Amended) A speech communication method of executing speech recognition processing for speech data transmitted from a speech input terminal through a wire or wireless communication network comprising:

the step of creating information for speech recognition on the basis of data transmitted from the speech input terminal, [which is] the information being unique to [said] the

speech input terminal or [represents] representing an operation state thereof[, on the basis of data transmitted from the speech input terminal]; and

the step of executing speech recognition processing on the basis of the information.

28. (Amended) A speech communication method of executing speech recognition processing for speech data transmitted from a speech input terminal through a wire or wireless communication network comprising:

the step of receiving information for speech recognition from the speech input terminal, [which is] the information being unique to [said] the speech input terminal or [represents] representing an operation state thereof [from the speech input terminal];

the step of determining a data conversion condition for communication on the basis of the information; and

the step of transmitting the data conversion condition to the speech input terminal.

29. (Amended) A speech communication method of executing speech recognition processing for speech data transmitted from a speech input terminal through a wire or wireless communication network comprising:

the step of creating information for speech recognition on the basis of data transmitted from the speech input terminal, [which is] the information being unique to [said] the

speech input terminal or [represents] representing an operation state thereof[, on the basis of data transmitted from the speech input terminal];

the step of determining a data conversion condition for communication on the basis of the information; and

the step of transmitting the data conversion condition to the speech input terminal.

30. (Amended) A speech communication method between a speech input terminal and a speech recognition apparatus, each of which can communicate with [each] the other through a wire or wireless communication network comprising:

[in the speech input terminal,]

the step of creating information for speech recognition in the speech input terminal, [which is] the information being unique to [said] the speech input terminal or [represents] representing an operation state thereof; [and]

the step of transmitting the information from the speech input terminal to the speech recognition apparatus[,]; and

[in the speech recognition apparatus,]

the step of executing, in the speech recognition apparatus, speech recognition processing on the basis of the information.

31. (Amended) A speech communication method between a speech input terminal and a speech recognition apparatus, each of which can communicate with [each] the other through a wire or wireless communication network comprising:

[in the speech recognition apparatus,]

the step of creating information for speech recognition in the speech recognition apparatus on the basis of speech data from the speech input terminal, [which is] the information being unique to [said] the speech input terminal or [represents] representing an operation state thereof[, on the basis of speech data from the speech input terminal]; and

the step of executing speech recognition processing on the basis of the information.

32. (Amended) A speech communication method between a speech input terminal and a speech recognition apparatus, each of which can communicate with [each] the other through a wire or wireless communication network comprising:

[in the speech input terminal, ]

the step of creating information for speech recognition in the speech input terminal, [which is] the information being unique to [said] the speech input terminal or [represents] representing an operation state thereof; [and]

the step of transmitting the information from the speech input terminal to the speech recognition apparatus[, and];

[in the speech recognition apparatus,]  
the step of determining, in the speech recognition apparatus, a data conversion condition for communication on the basis of the information; and  
the step of transmitting the data conversion condition from the speech recognition apparatus to the speech input terminal.

33. (Amended) A speech communication method between a speech input terminal and a speech recognition apparatus, each of which can communicate with [each] the other through a wire or wireless communication network comprising:

[in the speech recognition apparatus,]  
the step of creating information for speech recognition in the speech recognition apparatus on the basis of speech data from the speech input terminal, [which is] the information being unique to [said] the speech input terminal or [represents] representing an operation state thereof, on the basis of speech data from the speech input terminal];  
the step of determining a data conversion condition for communication on the basis of the information; and  
the step of transmitting the data conversion condition from the speech recognition apparatus to the speech input terminal.

34. (Amended) A storage medium recording a program [for, in order] to transmit speech data from a speech input terminal to a speech recognition apparatus through a wire or wireless communication network, the program causing a computer to [function as] perform the steps comprising:

[means for] creating information for speech recognition, [which is] the information being unique to [said] the speech input terminal or [represents] representing an operation state thereof[,]; and

[communication means for] transmitting the information to [said] the speech recognition apparatus.

35. (Amended) A storage medium recording a program [for, in order] to execute speech recognition processing on the basis of speech data sent from a speech input terminal through a wire or wireless communication network, the program causing a computer to [function as] perform the steps comprising:

[means for] receiving information for speech recognition from the speech input terminal, [which is] the information being unique to [said] the speech input terminal or [represents] representing an operation state thereof [from said speech input terminal]; and

[means for] executing speech recognition processing on the basis of the information.

36. (Amended) A storage medium recording a program [for, in order] to execute speech recognition processing on the basis of speech data sent from a speech input terminal through a wire or wireless communication network, the program causing a computer to [function as] perform the steps comprising:

[means for] creating information for speech recognition on the basis of the speech data transmitted from the speech input terminal, [which is] the information being unique to [said] the speech input terminal or [represents] representing an operation state thereof, on the basis of the speech data transmitted from said speech input terminal,]; and

[means for] executing speech recognition processing on the basis of the information.

37. (Amended) A storage medium recording a program [for, in order] to execute speech recognition processing on the basis of speech data sent from a speech input terminal through a wire or wireless communication network, the program causing a computer to [function as] perform the steps comprising:

[means for] receiving information for speech recognition from the speech input terminal, [which is] the information being unique to [said] the speech input terminal or [represents] representing an operation state thereof [from said speech input terminal]; [and]

[means for] determining a data conversion condition for communication on the basis of the information[,]; and

[means for] transmitting the data conversion condition to [said] the speech input terminal.

38. (Amended) A storage medium recording a program [for, in order] to execute speech recognition processing on the basis of speech data sent from a speech input terminal through a wire or wireless communication network, the program causing a computer to [function as] perform the steps comprising:

[means for] creating information for speech recognition on the basis of the speech data transmitted from the speech input terminal, [which is] the information being unique to [said] the speech input terminal or [represents] representing an operation state thereof[, on the basis of the speech data transmitted from said speech input terminal,];

[means for] determining a data conversion condition for communication on the basis of the information[,]; and

[means for] transmitting the data conversion condition to [said] the speech input terminal.